Please cancel claims 1-15.

16. (presently amended) A method for manufacturing integrated circuits, comprising:

providing a sample having a layer adapted to be developed in response to radiation <u>having a wavelength</u>;

providing a layout object to be projected on said layer;

placing said layer on said sample in contact or close proximity with a lens element of a projection lens <u>with a spacing between the lens element and the sample not greater than approximately the wavelength of the radiation divided by five and without an immersion lens between the lens element and the sample</u>, wherein said lens element comprises a material having an index of refraction for said radiation greater than 1; and

imaging the object on said layer through said projection lens.

17. (original) The method of claim 16, including imaging the object at an image plane so that evanescent waves emanating from the lens element transfer the image to said layer.

18. (original) The method of claim 16, including imaging the object at an image plane near a top surface of said layer.

19. (original) The method of claim 16, including preventing adhesion of said lens element to said layer.

20. (original) The method of claim 16, including placing a mask including said layout object in contact or close proximity with another lens element of a projection lens, wherein said other

lens element comprises a material having an index of refraction for said radiation greater than 1.

21. (original) The method of claim 16, including laying out a layout pattern on a mask including the layout object to be imaged on said layer, said laying out including applying proximity correction using a lithography model comprising, for an incident material different than air characterized by its refractive index and absorption coefficient, calculating fields in said layer, accounting for the incident material refractive index and absorption coefficient, performed using thin film optics or by solving Maxwell equations.

22. (original) The method of claim 16, including laying out a layout pattern on a mask including the layout object to be imaged on said layer, said laying out including applying proximity correction using a lithography model comprising, for an incident material different than air characterized by its refractive index and absorption coefficient, calculating fields in said layer, accounting for the incident material refractive index and absorption coefficient, performed using thin film optics or by solving Maxwell equations, and accounting for a gap between the incident material and the resist using thin film modeling or by solving Maxwell equations.

23. (original) The method of claim 16, including laying out a layout pattern on a mask including the layout object to be imaged

on said layer, the layout pattern comprising an alternating aperture phase-shifting mask layout, said laying out including applying proximity correction using a lithography model comprising, for an incident material different than air characterized by its refractive index and absorption coefficient, calculating fields in said layer, accounting for the incident material refractive index and absorption coefficient, performed using thin film optics or by solving Maxwell equations.

24. (original) The method of claim 16, including laying out a layout pattern on a mask including the layout object to be imaged on said layer, wherein said imaging the object on said layer through said projection lens, includes applying an off-axis setting for the projection lens, the off-axis setting obtained using a lithography model comprising, for an incident material different than air characterized by its refractive index and absorption coefficient, calculating fields in the resist, accounting for the incident material refractive index and absorption coefficient, performed using thin film optics or by solving Maxwell equations.

25. (original) The method of claim 16, including laying out a layout pattern on a mask including the layout object to be imaged on said layer, the layout pattern comprising an assist feature having a size and a distance from a corresponding main feature, said laying out including determining said size and distance using a lithography model comprising, for an incident material different

than air characterized by its refractive index and absorption coefficient, calculating fields in said layer, accounting for the incident material refractive index and absorption coefficient, performed using thin film optics or by solving Maxwell equations.

26. (original) The method of claim 16, including laying out a layout pattern on a mask including the layout object to be imaged on said layer, the layout pattern comprising an attenuated phase-shifting mask having sizing parameters, said laying out including determining said sizing parameters using a lithography model comprising, for an incident material different than air characterized by its refractive index and absorption coefficient, calculating fields in said layer, accounting for the incident material refractive index and absorption coefficient, performed using thin film optics or by solving Maxwell equations.

27. (original) The method of claim 16, wherein the sample comprises a wafer including a plurality of materials forming a wafer stack, and including laying out a layout pattern on a mask including the layout object to be imaged on said layer, said laying out including applying proximity correction using a lithography model comprising, for an incident material different than air characterized by its refractive index and absorption coefficient, dividing the refractive indices and absorption coefficients of all the materials in the wafer stack by the refractive index of the incident material.